

Date: Tue, 23 Aug 94 04:30:26 PDT
From: Ham-Homebrew Mailing List and Newsgroup <ham-homebrew@ucsd.edu>
Errors-To: Ham-Homebrew-Errors@UCSD.Edu
Reply-To: Ham-Homebrew@UCSD.Edu
Precedence: Bulk
Subject: Ham-Homebrew Digest V94 #248
To: Ham-Homebrew

Ham-Homebrew Digest Tue, 23 Aug 94 Volume 94 : Issue 248

Today's Topics:

 Band trap filter designs wanted!
 building questions
 DME (Dog Measuring Equipment)
 Ham-Homebrew Digest V94 #245 (2 msgs)
 help with crystal set?
 Portable EME Station -- Questions
 Subject: Reed Relays for RF
 WANTED: Source for Signetics NE604 or SA604 IF/FM detector chip

Send Replies or notes for publication to: <Ham-Homebrew@UCSD.Edu>
Send subscription requests to: <Ham-Homebrew-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Homebrew Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-homebrew".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Mon, 22 Aug 1994 18:19:38 GMT
From: ihnp4.ucsd.edu!news.service.uci.edu!ttinews!avatar!sorgatz@network.ucsd.edu
Subject: Band trap filter designs wanted!
To: ham-homebrew@ucsd.edu

Im looking for a "band trap" filter design, it should begin
attenuating at or near 26 MHz, have very steep skirts, be of
a 9 or 11 pole design, so that the filtering is at least 90dB,
and the upper cutoff should be at or near 28 MHz. If this sounds
like an 11m trap, it is! Such that all frequencies BELOW 26 MHz
pass, and all ABOVE 28 MHz pass. To me it seems like a low pass
filter (26) and a high pass (28) in parallel, but Im unsure of
how to match the two sections so as to provide a trap band filter
with 50 ohm impedance and a .5dB insertion loss. Anybody?

(the qrm in my neighborhood is fierce!)

-Avatar-> (aka: Erik K. Sorgatz) KB6LUY +-----+
TTI(es@soldev.tti.com)or: sorgatz@avatar.tti.com *Government produces NOTHING! *
3100 Ocean Park Blvd. Santa Monica, CA 90405 +-----+
(OPINIONS EXPRESSED DO NOT REFLECT THE VIEWS OF CITICORP OR ITS MANAGEMENT!)

Date: 22 Aug 1994 18:56:18 GMT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!overload.lbl.gov!dancer.ca.sandia.gov!
cronkite.nersc.gov!fastrac.llnl.gov!usenet.ee.pdx.edu!news.reed.edu!
usenet@network.ucsd.edu
Subject: building questions
To: ham-homebrew@ucsd.edu

I have two questions which I thought I'd roll into one post:

1) I seem to remember someone saying on this group that FM transceivers were relatively easy to make with the right chip set. Does anyone have a very simple design, that could be assembled cheaply?

2) I have come into an accessory VFO which has memories as well as other bells and whistles on it, and was thinking it might be nice to build an HF transciever around it. So I'd like a simple design that puts out at least a couple of watts, that would be capable of CW and SSB.

I've got pretty good soldering skills, and used to be both a computer repair tech, and various types of telco tech. I'm perfectly comfortable with building, but my theory is weak so, I'd like a design that is simple to align and repair. I know somebody is thinking that I should buy a kit. I'm thinking about doing that too, but building my own might be more fun.

End of line...
jfilner@reed.edu

Waiting for my call : (

Date: 22 Aug 1994 16:22:53 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!nic-nac.CSU.net!
charnel.ecst.csuchico.edu!olivea!korie1!news2me.EBay.Sun.COM!engnews2.Eng.Sun.COM!

windjammer!nickb@network.ucsd.edu
Subject: DME (Dog Measuring Equipment)
To: ham-homebrew@ucsd.edu

PaulBreed (paulbreed@aol.com) wrote:

: The Problem:
: The dog keeps taking off.
: It would cost too much to fence our 2 ac. in the woods,
: and he usually takes off when the kids get bored throwing the ball for him
: etc..
: (So he's not on his chain when the kids are throwing the ball etc...)
: Any system that worked could also be used to detect kid snatching etc...

: The solution:
: Devise a system that would tell me when He was leaving the yard.
: The dog carried part would have to fit on the collar of an 85lb
: dog.
: It would be nice if the battery lasted at least a week.

: Idea #1
: Build a simple Distance measuring system (Pulse and respond)
: Alarm when the dog was 300ft +/- 50ft from the house.
: +/-50 Ft is +/- 50 nsec

<stuff deleted...>

: 4)How does the commercial perimeter system work?
: What frequency does it operate on?

Paul,

Why bother jumping up and running after the dog every time he escapes?
The commercial systems use an electrical shock collar to teach the dog
not to go beyond the perimeter. On most dogs it works great. On really
big dogs, I've heard that it doesn't faze them at all. Anyway, I think
they work on a field strength basis. An antenna wire is run around the
property perimeter, and when the collar comes within about a meter, zing!
Sounds cruel, but the dog doesn't mind so much (well if he could talk,
I guess he'd say he does :->). I'd imagine that it uses a pretty low
frequency, like 100 KHz, but I really don't know. My impression is that
they are expensive, like a couple hundred for a system. Any pet store
has info on the systems (try Petco, Premium Pet, etc.).

BTW, I guess we should move this to rec.pets.dogs.

Nick Barbieri Amateur Radio: KB6QI

Date: 22 Aug 94 23:23:19 GMT
From: news-mail-gateway@ucsd.edu
Subject: Ham-Homebrew Digest V94 #245
To: ham-homebrew@ucsd.edu

ref article

Date: 18 Aug 1994 15:19:06 -0700 From:
agate!howland.reston.ans.net!europa.eng.gtefsd.com!newsxfer.itd.umich.edu!
z
ip.eecs.umich.edu!yeshua.marcam.com!news.kei.com!ssd.intel.com!chnews!ornews.int
el.com!ornews.@@ihnp4.ucsd.edu Subject: 50 watt amp for six
meter(schems). To: ham-homebrew@ucsd.edu

> In article <phb.777238394@melpar> phb@syseng1.melpar.esys.com (Paul
> H. Bock) writes: >fdugas@halcyon.com (Fred Dugas) writes: > >>I
> am looking for schematics for a medium power amp for six
> meters...

> If you wish, I'll dig back through my old ARRL Handbooks and VHF
>Manuals and see what's there; copies are free if I find anything of
>potential interest.

>Also check old copies of Ham Radio magazine. I have an old 826 tube
> that came out of an ultrasonic cleaner that will put out 90 watts
> up to 150Mhz. Specs for it are in the old Handbooks. The trick
> is to find a design that's close to what you want and then modify
> it to match what's available.

>My Dad ran a Clegg Venus which has about as clean a 40-watt signal as ever
>I've seen on 6 (I ran spectral measurements on it) and he still had
>TVI problems;...

>Wow, I'll bet that's a rare radio! I have a Clegg 99'er and used to
> have a Clegg 66'er but they both are runts compared to 40 watts.
> How many different 6 meter models did Clegg make?

>zardoz@ornews.intel.com WA7LDV Leave it to the BEAVER
> state
>I speak only for myself. <<< OREGON >>>

I owned the Clegg Thor-6 (35 watts AM) and the Zewus (150 watt
am) 6-2 tx used with the Interceptor RX. Ed Elegg sold his ham
gear company to one of the big corporations who promptly swalled

their patents and shut down the ham production!

A suggestion for the 6 meter amp would be to look for old low-band fm tx strips which were made by motorola, ge, rca, etc. The tubes would typically be 6146, 829, 5894 etc and outputs ranged from 30-200 watts. That would acquire a functional socket, maybe a good tube and tank circuits which could be modified easily to cover the six meter band or the 10 meter band. If you acquire old low band fm base stations that would also get you a class c power supply. Bias supplies for SSB useage would not be as big a problem as the main plate and filement supplies. You can also try the same approach with solid state rigs but I have had no experience in such conversions. If you are interested in mobile use of the amp you might look for somehting like a motorola g strtip transceiver and abandon the rx and exciter portions.

good luck..

Dale_Croft@comsys.rockwell.com	My employer does not endorse my
k5vmu @ Plano,Tx	opinions nor thoughts!! Perhaps
dale.croft@lunatic.com	I should disclaim them!!!!!!

Date: 22 Aug 94 23:23:24 GMT
From: news-mail-gateway@ucsd.edu
Subject: Ham-Homebrew Digest V94 #245
To: ham-homebrew@ucsd.edu

ref article

Date: 18 Aug 1994 15:19:06 -0700 From:
agate!howland.reston.ans.net!europa.eng.gtefsd.com!newsxfer.itd.umich.edu!
z
ip.eecs.umich.edu!yeshua.marcam.com!news.kei.com!ssd.intel.com!chnews!ornews.int
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meter(schems). To: ham-homebrew@ucsd.edu

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Dale_Croft@comsys.rockwell.com | My employer does not endorse my
k5vmu @ Plano,Tx | opinions nor thoughts!! Perhaps
dale.croft@lunatic.com | I should disclaim them!!!!

Date: Mon, 22 Aug 1994 16:34:07 GMT
From: psinntp!arrl.org!zlau@uunet.uu.net

Subject: help with crystal set?
To: ham-homebrew@ucsd.edu

JimCan (jimcan@aol.com) wrote:

: The only possible problems I can think of is that the "ground" isn't
: really connected to the ground (although I have also tried a sink) or the
: individual wires of the antenna are not supposed to touch (which would be
: impossible to correct, because of the kinkiness of the antenna wire--

The antenna/ground is important for improving reception, but unless you
live far from any AM station, I wouldn't worry about it, just yet.

: though I have connected my antenna to a store-bought radio and noticed a
: definite improvement in clarity) or that the capacitor is not of the
: right capacitance. The instructions I'm following call for a 365 picofarad
: capacitor, but in the schematic, they have a variable one. What I'm
: getting for a result is not static, but no sound whatsoever-- could this
: be related to improper grounding, antenna, or capacitance?

You need a variable capacitor to properly tune the radio. After all,
if you tune a normal radio to the wrong frequency you just get static.
The headphones you are using may not be sensitive enough to pick up static.

--

Zack Lau KH6CP/1 2 way QRP WAS
 8 States on 10 GHz
Internet: zlau@arrl.org 10 grids on 2304 MHz

Date: Mon, 22 Aug 1994 21:39:04 GMT
From: ihnp4.ucsd.edu!library.ucla.edu!csulb.edu!nic-nac.CSU.net!
charnel.ecst.csuchico.edu!csusac!csus.edu!netcom.com!btoback@network.ucsd.edu
Subject: Portable EME Station -- Questions
To: ham-homebrew@ucsd.edu

I hope that one of these will be the correct newsgroup for this
question; advice on redirection is welcome.

I'm thinking of assembling a portable EME station that I could use
for demonstrations at schools. I don't know if such a thing is
possible at any reasonable cost, or for any reasonable definition
of "portable." But here are the questions anyway:

1. I assume that because of my Arizona location, I can't use
432MHz. This seemed to be the best compromise between power
amplifier practicality and antenna size. Is 23cm a good
second choice?

2. Assuming that 23cm is a good second choice, how can I generate the necessary power on that band? I've found one amplifier design, in the 1975 (!) ARRL Handbook. It uses a pair of 3CX100A5 tubes and could be used for 200W continuous or 400W intermittent. Since the antenna will be compromised for portability's sake (no 24-ft dishes), I'd like to get more power than this. Has the state of the art improved since 1975? If so, where can I find construction information?
3. Various publications have stated that Yagi designs have proven unsatisfactory for EME work at 23cm, but don't say why. I can make guesses (losses in the splitter network, etc.), but don't know for sure. Is it in fact possible to use these for 23cm EME work? A back-of-the-envelope calculation suggests that a 24dBi array could be quite practical, but I haven't considered splitter network losses.
4. If a Yagi array really can't be made practical, does anyone know of some portable dish designs -- 4m or so? The dish doesn't have to be rugged or able to stand up to weather since it will never see a permanent installation.

The objective is a station that can hear its own echoes -- not necessarily with communication-capable quality -- and can communicate with a "big gun" EME station. If my planning is going in a completely fruitless direction for such an objective, I'd like to know early on!

Thanks,
-- Bruce Toback
KN6MN

Date: 22 Aug 94 13:18:10 GMT
From: news-mail-gateway@ucsd.edu
Subject: Subject: Reed Relays for RF
To: ham-homebrew@ucsd.edu

>Subject: Reed Relays for RF

>I am (for some time now) in the process of building a 4-1000 linear amplifier.
>It will run a good KW (4KV plate voltage). I have a good vacuum relay for
>the output RF switching. I am planning on using a RF rated reed relay to
>switch the input RF.

Get a copy of the January issue of QST. There is an article in there

by linear expert, R. Measures, AG6K. He describes a QSK circuit using a Kenwood RF reed relay for the input switching and a Jennings RJ1A for the amp. I built a QSK circuit based on his description and am very pleased with the results. The exciter relay is a replacement part for Kenwood TS850S. It cost about \$30 w/shpg, from Kenwood's East Coast parts distributor.

I used a quad-trace scope to measure the timing of input and output relays and was amazed how fast and clean the timing mechanism was. I used Measure's values for all time critical functions.

.....
73 de Walt Kornienko - K2WK Internet: waltk@pica.army.mil
DX PacketCluster: K2WK > W3MM (FRC) Packet: K2WK@N2ERH.NJ.USA.NOAM

Date: 22 Aug 1994 12:57:37 GMT
From: ihnp4.ucsd.edu!galaxy.ucr.edu!library.ucla.edu!csulb.edu!nic-nac.CSU.net!
channel.ecst.csuchico.edu!yeshua.marcam.com!news.kei.com!babbage.ece.uc.edu!
meaddata!mds@network.ucsd.edu
Subject: WANTED: Source for Signetics NE604 or SA604 IF/FM detector chip
To: ham-homebrew@ucsd.edu

In article <777331508snz@lfheller.demon.co.uk>, Leon@lfheller.demon.co.uk (Leon Heller) writes:

|> In article <32u8co\$ima@canopus.cc.umanitoba.ca>
|> rflukes@silver.cs.umanitoba.ca "Richard F. Lukes" writes:
|>
|> > I am trying to find a source for the Signetics NE604 or the equivalent

--

Try DC Electronics in Scottsdale, Arizona. Mailing address is
PO Box 3203, Scottsdale, AZ 85271. Phone number: 800-467-7736

They do have a \$15 minimum order, but I think that is waived on pre-paid orders. I don't have their catalog in front of me so I don't know for sure if they have that chip. I do remember seeing some Signetics chips.

Mike Suhar WB8GXB
mds@meaddata.com

Date: 22 Aug 1994 19:05:16 GMT
From: lll-winken.llnl.gov!s07.es.llnl.gov!hunter@ames.arpa

To: ham-homebrew@ucsd.edu

References <keith.35.0009023A@radio.nl.nuwc.navy.mil>, <300@coutts.UUCP>,
<barry.187.00154D86@indirect.com>

Subject : Re: XYL Reactions (snicker- Kodak moment) (was Re: IC-751A HF
Transceiver)

I would be very hesitant to put any electronic equipment in a dishwasher. Don't
forget that
it is assembled with lead solder. I imagine that you will end up with measurable
amounts of
lead on your next load of dishes.

Steven Hunter KC6RKV

End of Ham-Homebrew Digest V94 #248
